Electronic Version
Stylesheet Version v1.1.1

DIGITAL TELEVISION RECEIVER AND METHOD OF RECOVERING INCOMING DIGITAL TELEVISION SIGNAL

Abstract

A digital television receiver includes a tuner for down-converting an incoming signal to produce a down-converted signal according to a local oscillator signal corresponding to a selected channel. A filter is coupled to the tuner for filtering the down-converted signal to produce an intermediate frequency (IF) signal. A carrier recovery unit is coupled to the filter for locking to a carrier frequency of the IF signal, and a pre-shift unit is coupled to the tuner. By shifting the local oscillator signal in a first direction by a predetermined first frequency shift in a first phase of carrier recovery, and then by shifting the local oscillator signal in a second direction by a second frequency shift in a second phase of carrier recovery, the pre-shift unit ensures a pilot tone of a selected channel is not filtered from the down-converted signal by the filter.